SIAST

SASKATCHEWAN INSTITUTE OF
APPLIED SCIENCE AND TECHNOLOGY

Saskatchewan Urban Training Needs Assessment 2005

Prepared by:
SIAST Planning, Research and Development Division
Institutional Research and Analysis

June 2005
#05-02

www.goSIAST.com

Saskatchewan Institute of Applied Science and Technology

Saskatchewan Urban Training Needs Assessment 2005

Prepared by:
SIAST Planning, Research and Development
Institutional Research and Analysis

Report #05-02

©June 2005
Saskatchewan Institute of Applied Science and Technology (SIAST)
Planning, Research and Development Division

Reproduction of this report or parts thereof is permitted provided appropriate acknowledgments are given.

105-06180/

Table of Contents

1.0 Introduction **1**

1.1 Background 1

1.2 Objective of the report 1

1.3 Format of the report 1

2.0 Planning Context **3**

2.1 Economic trends 3

2.1.1 Canada 3

2.1.2 Saskatchewan 4

2.2 Saskatchewan Demographics 5

2.2.1 General Population Trends 5

2.2.2 Kindergarten to Grade 12 Provincial Projections 6

2.2.3 Aboriginal Demographics 7

2.2.3.1 Aboriginal Population in Canada 7

2.2.3.2 Aboriginal Population in Saskatchewan 7

2.2.4 Disabled Population 9

2.2.4.1 Disabled Population in Canada 9

2.2.4.2 Disabled Population in Saskatchewan 9

2.2.5 Immigrants 11

2.2.5.1 Immigrants to Canada 11

2.2.5.2 Immigrants to Saskatchewan 11

2.3 Educational Levels 13

2.3.1 Post-Secondary Education Attainment – Canada and Saskatchewan 13

2.4 Labour Force 14

2.4.1 Labour Force Projections in Saskatchewan 14

2.4.2 Employment by Industry 14

2.4.3 Employment Rates 15

2.4.4 Unemployment Rates for Immigrants in Saskatchewan 15

2.4.5 Immigrant Labour Force in Saskatchewan 15

2.4.6 Occupation Shortages 16

3.0 Summaries of Training Needs Assessment Industry Consultations 19

3.1 Introduction 19

3.2 Summary of the Findings 19

4.0 Summaries of relevant studies and reports 39

4.1 Overview of sector partnership reports 39

4.1.1 The Water and Wastewater Workers Essential Skills Project 40

4.1.2 The Saskatchewan Paramedic Association 40

4.1.3 Occupational Health and Safety 41

4.1.4 Saskatchewan Food Processing - Phase II 42

4.2 Summary of SIAST needs assessment studies 43

4.2.1 Funeral Homes – Industry Profile/Needs Assessment 43

4.2.2 Grocery Manager – Industry Profile 43

4.2.3 Perioperative Nursing /Registered Nurse and Perioperative Nursing/Licenced Practical Nurse – Labour Market Needs Assessment 43

4.2.4 Ecotourism Certificate Program – Labour Market Needs Assessment 43

4.3 Other Reports 44

References 45

1.0 Introduction

1.1 Background

As part of the annual program planning process, SIAST conducts a number of consultations with various SIAST stakeholders - employers, industry organizations and associations, community representatives and various SIAST departments. The planning process identifies and researches future program training needs in the province of Saskatchewan. In addition to consultations, various publications that identify labour market information, general trends and statistics are also examined. Following the compilation of all labour market research conducted this spring, the Saskatchewan Urban Training Needs Assessment 2005 report (herein referred to as SUTNA) was produced.

1.2 Objective of the report

The objective of SUTNA 2005 is to report on future training needs identified in the four SIAST campus cities (Saskatoon, Regina, Moose Jaw and Prince Albert), as well as information relevant to province-wide unmet training needs. The data presented in the SUTNA report form the basis of a SIAST provincial training plan which is used for the SIAST business plan.

1.3 Format of the report

The SUTNA 2005 report is divided into three sections.

Section 2.0 provides a brief report on the economic situation both nationally and provincially. This section provides broad labour market information, economic activities and future trends relevant to Saskatchewan and to SIAST.

Section 3.0 reports the primary research obtained from stakeholder consultations – both from focus group sessions and responses to a survey, which had been included with the invitation to attend a consultation session. Invitees were asked to complete a questionnaire, either for a business or for an association. Responses to the questionnaire were compiled and are included along with the information from the focus group sessions in section 3.0 of the report. Copies of both questionnaires are included as appendix A.

Section 4.0 records the summaries of the sector partnership studies that have been completed within the past year. There are currently 57 sector partnerships in 32 industries in Saskatchewan. The sector partnership program is an initiative of Saskatchewan Learning and is a plan to develop human resource strategies to address industry skill shortages in the province. The sector partnership program is an ongoing process for the province as new sector partnerships continue to be established.

Section 4.0 also includes a summary of industry profiles or needs assessment studies recently completed at SIAST, as well as highlights of various published reports that identify future training trends in the province which may be relevant to SIAST.

SIAST is striving to be responsive to many of these identified training needs but is aware that it cannot meet all that are identified. Some are not financially feasible or do not fall within SIAST's jurisdiction.

SIAST thanks the participants of the stakeholder consultations who took the time to attend the discussion group sessions and provide SIAST with their views and valuable input with regard to future training needs in Saskatchewan. Also thanks are extended to those businesses and associations that submitted valuable information by completing the questionnaire.

2.0 Planning Context

2.1 Economic trends

2.1.1 Canada

In 2004, Canada achieved a real GDP (gross domestic product) growth of 2.8 percent, up from the previous year's growth of 1.7 percent. The growth was driven by the country's resource base, especially in energy exports and investment. Rising export demand comprised the entire gain in Canada's GDP growth, with a rapidly growing China economy accounting for a majority of Canadian shipments.

In 2004, the Canadian dollar rose another five cents on average against the US dollar, after a seven-cent increase the previous year. The dollar is expected to stabilize in 2005. Commodity prices saw the best consecutive yearly increases since the early 1970's, which countered the depressing effect of the rising dollar on exports.

Energy leads as the leading resource export, as rising prices and new sources of supply have doubled the level of exports since 1999. It is anticipated that markets expect oil prices to remain permanently higher, with futures prices (to 7 years ahead) rising above $40 a barrel. The majority of expansion has come from the oil and gas sector, in mega-projects such as the Alberta tar sands, which account for over 40 percent of oil output in Canada. All of the mega-projects require a substantial increase in pipeline capacity to bring product to market.

Success in metals and minerals markets has also driven up mining activity across the country, although it is predicted that global demand may lessen in the future.

(Source: Statistics Canada. The Daily, April 14, 2005. Study: Canada's Economic Growth in Review)

Economic growth did not occur evenly across Canada, with the growth skewed to the resource-based west and north. Seventy-five percent of capital outlays in oil and gas projects will be spent in Alberta in 2005. Neighboring provinces to Alberta will enjoy brisk energy sector activity as well.

(Source: CIBC World Markets. Provincial Forecast. March 10, 2005. www.cibcwm.com/research)

Overall, Canadian industries had a fairly even distribution of growth, with a 6 point spread (wholesale at 6 percent to utilities at 0 percent):

- Accommodation and food rebounded from the SARs-induced loss in 2003.
- Manufacturing and transportation industries came back after international trade recovered from an off year in 2003 (strong economic growth in the United States). Manufacturing, mining and tourism had felt the biggest pinch from a loss in trade competitiveness due to the soaring Canadian dollar.
- Arts and recreation showed a slowdown, due to a loss in spectator sports (hockey).
- Manitoba and Saskatchewan lagged in provincial growth employment due to a weakness in farming; while Alberta led in growth thanks to its energy sector.

(Source: Statistics Canada. The Daily, April 14, 2005. Study: Canada's Economic Growth in Review, and TD Economics. Regional Economic Outlook. March 21, 2005. www.td.com/economics)

2.1.2 Saskatchewan

As with the nation, Saskatchewan's economic growth in the coming year will be centered on its resource-based industries. Statistics Canada reports that public and private investment intentions for Saskatchewan in 2005 are the highest in the country, at 12.5 percent. This investment, along with more co-operative weather for the agriculture industry and a resumption of cattle exports, could deliver a 2.9 percent GDP advance in 2005.

Oil and gas activity has been spurred on by high prices. A key industry association anticipates an 8 percent increase in provincial drilling in 2005. Soaring oil and gas prices, coupled with a commitment to reduce greenhouse gas emissions, has renewed interest in nuclear power, a plus for Saskatchewan's uranium industry. Cameco has been given approval to begin construction of a $450 million uranium mine at Cigar Lake, with production scheduled to commence in 2007. This mega-project will lead job activity in the construction sector, offsetting moderating residential activity.

Potash exports have also been surging, and production is being ramped up to meet the demand. Expansion projects are occurring at mine sites throughout Saskatchewan. Overall, solid growth in the energy sector should contribute to another year of respectable economic growth.

Elevated ground moisture levels and warmer temperatures will hopefully assist farmers to achieve improved crop quality to counter soft prices for their products. In 2003, elevated crop production (46 percent increase) was displaced by poor crop quality due to a cool, wet summer. The leader of all provinces in goods exports in 2004; Saskatchewan should expect robust international demand for food products to continue. The level of grain shipments to China, the single largest foreign buyer of Canadian wheat, are expected to continue rising.
(Source: CIBC World Markets. Provincial Forecast. March 10, 2005. www.cibcwm.com/research)

In addition to the energy sector mega-projects, there are a number of significant projects being undertaken in Saskatchewan that will boost employment in construction, other trades, and value-added processing/manufacturing. A few examples of such activity are listed below:

- Mee-Toos Forest Products, Peter Ballantyne Cree Nation, has been granted a five-year license to harvest timber on over 1.6 million hectares of provincial forest. The number of people working in the company will rise from 50 to 200 in areas such as harvesting and transportation.
- Logen Corporation is signing up local farmers to supply feedstock for a $400 million ethanol plant to be built in Birch Hills area. The plant would create 75 jobs and an additional 450 spin-off jobs in trucking and baling industries.
- A new beef slaughtering and processing facility has recently begun operations in Wolseley. The plant requires approximately 80 new positions. The industry association has indicated that additional slaughtering and processing facilities are expected to be built in the future.
- The hospitality sector will see increased activity as the development of Saskatoon's south riverfront project begins, which has received $29.3 million in investments from all three levels of government. Nearby, Saskatoon Tribal Council's $35 million casino south of the city plans to open its door in the summer of 2006, employing approximately 550 workers.
- Over the next four years, the Midale C02 Injection Operation has plans for a $100 million upgrade to the existing plant, which will include the construction of a pipeline to transfer C02 from the EnCana facility near Goodwater to the Midale plant.

(Source: Human Resource and Skills Development Corporation (HRSDC). Labour Market Bulletins. www.hrsdc.gc.ca)

2.2 Saskatchewan demographics

2.2.1 General Population Trends

The population of the province has consistently hovered at the one million mark over the past thirty years and is not expected to significantly change in the future.

The following are interesting trends to note for the province:

- Oldest population in Canada.
- Oldest labour force in Canada with an average worker age of 39.8 in 2001.
- Shift in the demographics with an aging non-Aboriginal population.
- Aboriginal population increasing which accounts for majority of young in the province.
- Rural depopulation with residents moving from the rural to the larger urban centers (however, Saskatchewan still has the highest proportion of rural population of the three western provinces).
- Increasing trend in net-migration, with out-migration being greater than in-migration.

Table 1 records the projected population by ten-year age groups to 2025 and identifies the projected working population in the key age groups to 2025. Compared with other provinces, Saskatchewan has the largest proportion of seniors and the largest proportion of children.

Table 1: Projected Saskatchewan Population 2005-2025

Category	Projected Saskatchewan Population				
	2005	**2010**	**2015**	**2020**	**2025**
Under 10	124,158	120,613	119,124	117,225	110,292
10-19	149,549	137,099	125,696	121,698	120,482
20-29	141,550	146,939	137,071	126,590	115,065
30-39	119,484	123,926	134,213	138,865	130,487
40-49	151,578	132,777	115,249	120,121	131,331
50-59	123,694	140,983	144,613	126,501	110,375
60-69	78,865	93,345	113,453	129,363	132,601
70-79	63,497	61,146	63,765	76,073	92,719
80 plus	46,660	46,401	44,724	43,292	44,060
TOTAL	**999,036**	**1,003,231**	**997,908**	**999,728**	**988,312**
15-29	218,417	218,633	201,546	187,473	175,511
25-59	460,461	470,731	463,648	450,268	430,099

(Source: Labour Market Trends, Sask Trends Monitor. November 2004. http://www.sasktrends.ca - adapted)

Average age of overall students is 27; for those taking Basic Education, average age is 29; for apprenticeship students it is 28 and for those taking certificate or diploma programs it is 26.
(Source: SIAST Institutional Research and Analysis Unit, 2005)

IMPACT FOR SIAST

- Steady decline of school-age population will mean fewer sequential students.
- Major pool of applicants to SIAST programs will be the 20-29 year age group, and this is expected to decrease significantly after 2010.

2.2.2 Kindergarten to Grade 12 Provincial Projections

The *Saskatchewan Learning Projections for Kindergarten to Grade 12, 2004-2005 to 2013-14*, report, identified that the non-Aboriginal school-aged population in Saskatchewan has been declining in recent years but that the number of Aboriginal school-aged children in Saskatchewan has and will continue to increase. Currently, twenty percent of the school-aged population in the province is Aboriginal.

The provincial actual and projected K-12 enrollment is as follows:

- **ACTUAL**
  - 1980-81 was 203,573 students
  - 1998-99 was 190,896
  - 2003-04 was 174,263 - reduction of over 14 percent between 1980-81 to 2003-2004
- **PROJECTED**
  - 2007-08 AT 160,350
  - 2010-11 at 149,370
  - 2013-14, at 141,428 - projected reduction of 19 percent from 2003-04 to 2013-14.

Table 2 records that the K-12 enrollment decline is prevalent particularly in the rural areas of the province, and the increase in enrollment will be primarily in the First Nations schools.

Table 2: Grade 9-12 Actual and Projected Enrollments – Selected Years

Year	Urban	Rural	First Nations Schools
1998-99	35,270	23,460	2,386
2003-04	37,542	20,628	3,241
2007-08	37,839	18,073	3,919
2013-14	32,272	14,319	4,539

(Source: Saskatchewan Learning. Enrollment Projections for Kindergarten to Grade 12, 2004-05 to 2013-14, February 2004 Update) Adapted – 1998-99 and 2003-04 years are actual enrolments)

2.2.3 Aboriginal Demographics

2.2.3.1 Aboriginal Population in Canada

In June 2004, Statistics Canada updated the Census 2001 data and reported that 3.4 percent of the nation's total population was of Aboriginal decent. Manitoba and Saskatchewan recorded the largest Aboriginal populations in Canada, each at 13.6 percent of the total provincial populations. Alberta and British Columbia recorded 5.4 and 4.4 percent respectively of the total provincial populations.

2.2.3.2 Aboriginal Population in Saskatchewan

As a proportion of the total population in Saskatchewan, the Aboriginal population is projected to be 14.6 percent in 2005, 16.1 percent in 2010 and above 20 percent by 2025. Table 3 records the projected First Nations population by ten-year age groups to 2025.

Table 3: Projected Saskatchewan First Nations Population 2005-2025

Category	Projected Saskatchewan First Nations Population				
	2005	2010	2015	2020	2025
Under 10	23,516	22,371	23,212	24,554	24,366
10-19	24,513	26,774	24,905	23,155	24,084
20-29	15,608	20,480	23,997	25,758	23,944
30-39	11,940	13,390	15,889	20,312	23,698
40-49	9,894	10,628	12,120	13,408	15,935
50-59	5,634	8,038	9,577	10,238	11,727
60-69	2,683	3,734	5,061	7,367	8,803
70-79	995	1,387	2,022	2,990	4,166
80 plus	694	646	589	911	1,347
TOTAL	**95,478**	**107,447**	**117,372**	**128,693**	**138,071**

(Source: Labour Market Trends, Sask Trends Monitor. November 2004. http://www.sasktrends.ca – adapted)

Table 4 identifies the Aboriginal population in Canada and Saskatchewan. Highlighted in the table is the working population in the key age groups at 2001. As the non-Aboriginal population ages and creeps towards retirement within the next ten to fifteen years, a shortage of workers is projected. Demographers are hoping that the young, Aboriginal working age population will be able to alleviate some of the pressures that are anticipated in Saskatchewan's future labour market. Forty percent of all Aboriginals are under 15 years of age.

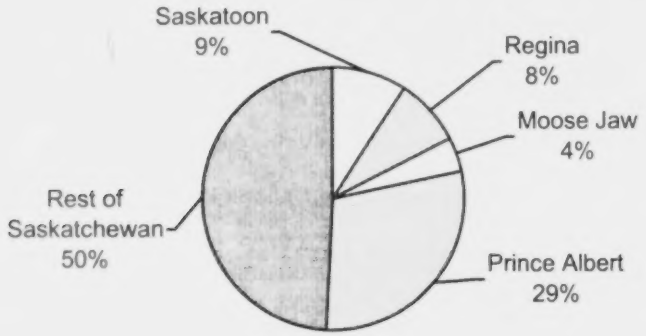
Table 4: Percent of the Population that is Aboriginal, by age group, 2001 (Includes First Nations and Metis population)

Age Categories	Aboriginal Population in Canada	Saskatchewan Population	Saskatchewan Aboriginal Population	% of the Population in Saskatchewan that is Aboriginal
0-14 years	323,965	207,230	51,535	24..9%
15-24	169,070	144,240	23,965	16.6%
25-34	148,550	115,125	18,870	16.4%
35-44	145,855	149,330	16,350	10.9%
45-54	96,365	130,885	9,890	7.6%
55-64	52,830	84,560	5,375	6.3%
65 and older	39,680	147,565	4,210	2.8%
TOTAL	976.315	978,935	130,195	13.3%

(Source: Statistics Canada. 2001 Census data, Aboriginal peoples of Canada: A demographic profile. Adapted Catalogue no.96F0030XIE2001007)

Figure 1 identifies the Aboriginal population in 2001 in each of the four major cities in the province. The four cities accounted for 50 percent of the total Aboriginal population in Saskatchewan, which is a significant increase from the 35 percent identified in 1996.

Figure 1: Aboriginal Population in 2001 in Saskatoon, Regina, Moose Jaw and Prince Albert as a percentage of the Total Population in Saskatchewan



(Source: Statistics Canada. 2001 Census data, prepared by the Saskatchewan Bureau of Statistics)

SIAST INITIATIVES

The Aboriginal student body at SIAST consistently records a higher enrollment participation percentage than the 12.2 percent established long-term goal of the Institute, as shown in Table 3. A number of initiatives are in place to recruit students of Aboriginal ancestry to SIAST, such as the allocation of a number of training seats in all programs for qualified Aboriginal applicants, and the availability of equity scholarships, bursaries and awards. In 1995-96 the percentage of Aboriginals enrolled overall at SIAST was 16.9 percent and in 2003-04 that figure increased to 18.6 percent. Table 5 reports the nine-year Aboriginal participation rates at SIAST in all programs which includes Basic Education, certificate and diploma programs (both on- and off-campus) and Apprenticeship programs.

Table 5: Aboriginal Population Enrolled at SIAST, Nine-year Participation Rates

Academic Year	Total Enrolled at SIAST	# Aboriginals Enrolled at SIAST	% Aboriginals Enrolled in all Programs at SIAST
1995-96	13750	2322	16.9%
1996-97	13586	2674	19.7%
1997-98	13430	2628	19.6%
1998-99	12855	2359	18.4%
1999-2000	12631	2310	18.3%
2000-02	12727	2226	17.5%
2001-02	11968	2261	18.9%
2002-03	11749	2163	18.4%
2003-04	11691	2173	18.6%

(Source: SIAST Education Equity Statistics, Institutional Research and Analysis Unit, 2005)

IMPACT FOR SIAST

- Ensure that the graduation rate of Aboriginals at SIAST is proportionate to the enrollment percentages.

2.2.4 Disabled Population

2.2.4.1 Disabled Population in Canada

Following Census 2001, Statistics Canada conducted the 2001 Participation and Activity Limitation Survey (PALS), and produced a report on the profile of the disabled in Canada. The national survey collected data about persons with disabilities whose everyday activities are limited because of a physical or mental condition or health problem; on the type and severity of activity limitations; and the need for specialized equipment. Excluded from the survey were those living in the Yukon, Northwest Territories and Nunavut, as well as those living in institutions and on First Nations reserves. The national response rate to the survey was 82.5 percent.

According to the report, A Profile of Disability in Canada in 2001, one out of every seven Canadians aged 15 and over (an estimated 3.6 million) indicated that they had some level of disability (14.6 percent of the total adult population). The severity of the disabilities ranged from the more than one million who reported mild levels of disability, and the 855,000 who reported moderate levels, to over one million who reported severe or very severe levels. In general, the disability rate was higher for women aged 15 and older. Fifty-three percent of working-age women reported some form of disability with pain ranking high on the levels of disabilities.

2.2.4.2 Disabled Population in Saskatchewan

Table 6 compares the adults in Saskatchewan who declared that they had a disability, with the total population in the province, by gender and age groups. In Saskatchewan 17.3 percent, aged 15 and over, reported some form of disability, compared to 14.5 percent of the Saskatchewan population of all ages. The neighbor province, Alberta, reported approximately 15 percent with a disability aged 15 and over.

Table 6: Saskatchewan adults, aged 15 and over with disabilities, by gender and age groups

AGE GROUPS	Total Population			Persons with disabilities			Overall % with Disabilities
	Total	Males	Females	Total	Males	Females	
15-24	125,490	64,200	61,290	5,310	2,630	2,680	4.23
25-44	234,680	115,570	119,120	20,460	9,900	10,560	8.72
45-64	196,980	98,540	98,440	36,040	17,940	18,090	18.30
65-74	66,640	31,770	34,870	22,420	11,300	11,110	33.64
75 and over	61,630	25,080	36,550	34,510	14,180	20,230	56.00
Total Aged 15 and over	685,420	335,160	350,270	118,740	55,950	62,670	17.32

(Source: Statistics Canada, A Profile of Disability in Canada, 2001 – Tables. 2001 Participation and Activity Limitation Survey. December 2002. Catalogue no. 89-579-XIE) – adapted)

The age categories of potential SIAST students are the 15-24 and 25-44 year olds. As Table 6 indicates, 4.23 percent of disabled are in the 15-24 age category. The combined percentage for the 15-14 and 25-44 age groups is 7.2 percent.

SIAST INITIATIVES

The SIAST Education Equity program takes measures to identify, eliminate, or reduce systemic practices which may have the effect of creating discriminatory barriers for members of the designated groups; and provides special measures which will increase opportunities and support for designated group students. The SIAST policy, Accommodations Provided for Persons with Disabilities to Meet Certification Requirements, includes strategies to meet situations where students with disabilities cannot meet all course and program requirements in the usual way. SIAST was recently awarded the

Canadian Association of Disability Providers in Post-Secondary Education (CADSPPE) Award for Excellence in Service to Students with Disabilities.

Accommodating students with disabilities develops organizational awareness, learning and understanding, enables students to pursue their studies more effectively, strengthens the learning environment for all students and fosters partnership and collaboration with the community. Providing accommodations helps to foster this notion as the students make the transition from the learning environment to the work place. Table 7 reports the nine-year participation rates for the disabled population at SIAST.

Table 7: Disabled Population Enrolled at SIAST, Nine-year Participation Rates

Academic Year	# Disabled Enrolled at SIAST	Total Enrolled at SIAST	% Disabled Enrolled at SIAST
1995-96	493	13750	3.6%
1996-97	585	13586	4.3%
1997-98	536	13430	4.0%
1998-99	489	12855	3.8%
1999-2000	522	12631	4.1%
2000-02	574	12727	4.5%
2001-02	612	11968	5.1%
2002-03	554	11749	4.7%
2003-04	572	11691	4.9%

(Source: SIAST Institutional Research and Analysis unit, 2005)

IMPACT FOR SIAST

- Over half of SIAST students are under age 25, so a participation rate goal of 5.0 percent for disabled persons is representative of the population.

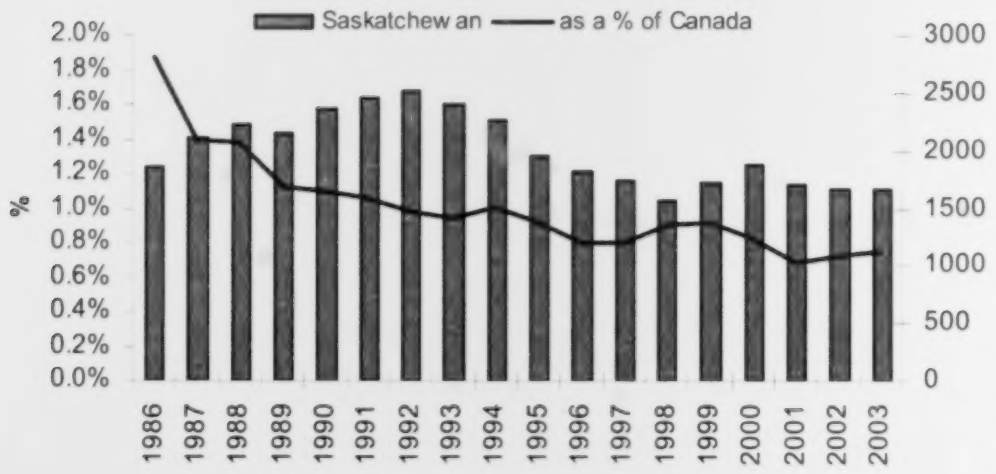
2.2.5 Immigrants

2.2.5.1 Immigrants to Canada

In Census 2001, Statistics Canada defined the foreign-born population (also known as the immigrant population) as persons who are now, or who once were, landed immigrants in Canada, and reports that between 1991 and 2001, Saskatchewan received only 11,365 new immigrants. Manitoba received 32,345 immigrants over the same period, and Alberta 129,920.

The Canadian Labour and Business Centre presentation March 2005 of National and Provincial Trends and Issues on Immigration in Canada and Saskatchewan, reported that in 2003, less than 1 percent of all immigrants to Canada actually came to Saskatchewan, as identified in Figure 2.

Figure 2: Immigrants to Canada and Saskatchewan, 1986 - 2003



(Source: Canadian Labour and Business Centre, March 2005, Saskatoon - adapted)

2.2.5.2 Immigrants to Saskatchewan

In the April 2005 Monthly Statistical Review, the Saskatchewan Bureau of Statistics reported that a total of 5277 immigrants came to Saskatchewan in the three year period, 2002-2004, as shown in Table 8. One in five Canadians, aged 15 and over, is an immigrant to the country, compared to one in 15 of the same age group in Saskatchewan.

Table 8: Saskatchewan New Immigrant Population

2002	2003	2004	3 Year total
1,667	**1,668**	**1,942**	**5,277**

(Source: Government of Saskatchewan, Bureau of Statistics, Monthly Statistical Review, April 2005)

Retention rates of immigrants from 1996 to 2001:

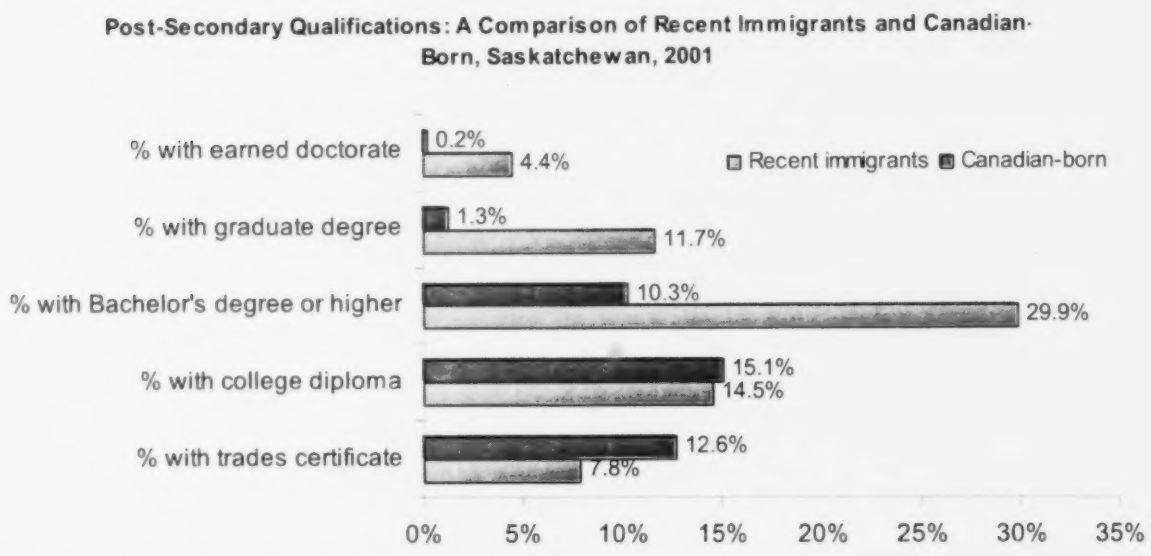
Saskatoon – 76%

Regina – 57%

(Source: Presentation made March 18, 2005, by the Canadian Labour and Business Centre using Citizenship and Immigration Canada data and Statistics Canada data)

As of 2001, immigrants to Saskatchewan had higher levels of education than the Canada born residents in the province, as outlined in a recent study shown in Figure 3.

Figure 3: Post-Secondary Qualification of Immigrants to Saskatchewan in 2001



(Source: Canadian Labour and Business Centre, March 2005, Saskatoon)

In the Canadian Labour and Business Centre, 2002 Viewpoints Survey, managers in the private and public sector reported language difficulties (69 percent) and difficulties assessing foreign credentials (62 percent) as the major obstacles in hiring foreign-trained workers.

With a projected labour force crunch in the future, attracting immigrants to Saskatchewan and retaining them will be a major challenge for the province. In a May 2004 news release, Saskatchewan Government Relations and Aboriginal Affairs announced plans to expand the immigration program in order to counter the province's low immigrant activity, and projects an estimated 1000 new immigrants and dependants by:

- Attracting more foreign students.
- Attracting more skilled workers.
- Providing opportunities for business owners to hire immigrants.
- Increasing applicants who apply through the provincial nominee's program (the 2004-05 target was 300).

IMPACT FOR SIAST

- With language being a major obstacle for employers hiring foreign-trained workers, SIAST will need to increase the "English as a Second Language" offerings.

2.3 Educational Levels

2.3.1 Post-Secondary Education Attainment – Canada and Saskatchewan

The Canadian Education Statistics Council, Pan-Canadian Education Indicators report recorded that, in both Canada and Saskatchewan, the educational attainment at the trades, college and university levels had risen between the years 1991-2001 (by 9 percent), while the number of people with less than high school education in the same period had declined (by 9 percent).

Table 9 reports the educational attainment comparison in 2001 between Canada and Saskatchewan and records that Saskatchewan is lower than Canada in comparing all trades, college and university attainment but that in the trades attainment alone Saskatchewan surpasses Canada. Also of significance, is the fact that in 2001 Saskatchewan compared to Canada had a higher percentage of those with less than high school educational attainment level.

Table 9: Educational Attainment of 25-64 year olds in Canada and Saskatchewan in 2001

Educational Level	Canada 2001		Saskatchewan 2001	
	Number	%	Number	%
Less than high school	3,698,245	23	134,585	28
High school	3,898,400	24	103,875	22
Trades	2,097,145	13	76,050	16
College	2,917,890	18	74,405	16
University	3,676,620	23	87,005	18
All trades, college and university	8,691,655	53	237,460	50
Population aged 25-64	16,288,300	100	475,920	100

(Source: Canadian Education Statistics Council. Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2003. November 2003. http://www.cesc.ca/pceipE.html - adapted)

IMPACT FOR SIAST

- There will be an increased demand for post-secondary education and particularly for Basic Education in order to increase the overall educational level of the Saskatchewan population.

2.4 Labour Force

2.4.1 Labour Force Projections in Saskatchewan

Doug Elliott, author of the Saskatchewan Labour Market Trends, 2004 Update, reports that age 60 will probably become the "normal" retirement age in the province and that Saskatchewan needs to plan for this exodus from the workforce. Elliott reports that a decline in the size of the labour force in the province will soon start to decline if steps are not taken to increase the participation labour force rates. In his presentation to the Assiniboia Club in March 2005, Elliott indicated that this kind of situation is unprecedented in the North American labour market and experts predict one or more of the following could happen in the province:

- The demand for labour will generate an increase in wage rates, attracting workers from other provinces or countries
- The same increase in wages will attract those not employed to enter or re-enter the labour market
- The economy will shift from labour-intensive activities to capital intensive
- There will be a general economic slowdown – to avoid the slowdown, the province needs a two-pronged approach, mainly:
  - Increase in-migration
  - Raise education levels in the population generally and in particular the Aboriginal population to enable an increase in participation rates.

2.4.2 Employment by Industry

Table 10 illustrates that the majority of employed are in the service producing sector (75 percent both in Canada and Saskatchewan), with 25 percent in the goods producing sector. Saskatchewan's labour force continues to be employed in the trades (17 percent), health care and social assistance (12 percent), agriculture (10 percent), and educational services (8 percent) sectors. Relative to Canada, Saskatchewan has a higher proportion of employees in the agriculture (8 percent higher), educational services (1 percent higher), and health care and social assistance sectors (1 percent higher), but much lower in the manufacturing sector (by 8 percent).

Table 10: Distribution of Employment by Industry – Canada and Saskatchewan – March 2005

Industry Sector	Canada		Saskatchewan	
	Employment #	% of Total Canada Employment	Employment #	% of Total Saskatchewan Employment
Goods Producing Sector	**4,017,600**	**25%**	**123,000**	**25%**
Agriculture	333,000	**2%**	46,700	**10%**
Forestry, fishing, mining, oil and gas	298,300	**2%**	17,500	**4%**
Utilities	125,600	**1%**	4,800	**1%**
Construction	993,200	**6%**	24,800	**5%**
Manufacturing	2,267,500.00	**14%**	29,300	**6%**
Service Producing Sector	**12,070,800**	**75%**	**366,600**	**75%**
Trade	2,556,200	**16%**	81,100	**17%**
Transportation and Warehousing	783,600	**5%**	24,200	**5%**
Finance, insurance, real estate, and leasing	1,000,700	**6%**	26,700	**5%**
Professional, scientific and technical services	1,018,200	**6%**	18,600	**4%**

Industry Sector	Canada		Saskatchewan	
	Employment #	% of Total Canada Employment	Employment #	% of Total Saskatchewan Employment
Business, building and other support services	634,000	4%	14,500	3%
Educational services	1,075,900	7%	40,800	8%
Health care and social assistance	1,737,100	11%	56,800	12%
Information, culture and recreation	744,500	5%	20,100	4%
Accommodation and food services	987,500	6%	31,800	6%
Other services	699,000	4%	24,400	5%
Public Administration	834,100	5%	27,600	6%
Total all Industries	**16,088,400**	**100%**	**489,600**	**100%**

(Source: Statistics Canada. Employment by Major Industry Groups and Province, Seasonally Adjusted, Saskatchewan. Cansim Table 282-0088. April 2005)

2.4.3 Employment Rates

Statistics Canada reported the nation's seasonally adjusted employment figures for March 2005 and indicated that over the first three months of 2005, employment only rose by 0.2 percent (+25,000 jobs) – similar to that of the United States. Saskatchewan, Alberta and British Columbia were the three provinces with employment growth in the first quarter above the national average, at 0.6, 0.8, and 0.6 percent growth respectively.

In Canada, from March 2004 to March 2005, employment increased by 1.6 percent for all industries to approximately 16,088,400 employed. In Saskatchewan, employment increased by 2.8 percent to 489,600 employed over the same timeframe.

Statistics Canada reports, April 2005, that the majority of employed (81 percent) were working full-time in March 2005, while the remaining 19 percent were employed part-time, similar to that of March 2004. In Saskatchewan statistics for March 2005, the ratio of full-time to part-time workers remained at 80:20, again similar to that of March 2004.

(Source: Statistics Canada. The Daily, April 8, 2005. Labour Force Survey)

2.4.4 Unemployment Rates for Immigrants in Saskatchewan

The Saskatchewan unemployment rate for March 2005 was 5.2 percent, while in Canada the rate was 6.9 percent.

(Source: Statistics Canada. Labour Force Survey, CANSIM, modified April 2005)

2.4.5 Immigrant Labour Force in Saskatchewan

The Canadian Labour and Business Centre reported that unemployment rates of recent immigrants to Saskatchewan is higher than for the Canadian born residents in the province for the years 1991 and 2001, as shown below:

- **1991 - Saskatchewan**
  - Non-Immigrant Population – **7.0 percent unemployment**
  - Immigrants who entered country within 5 years prior to 1991 – **11.4 percent unemployment**
  - Immigrant who entered country within 6-10 years prior to 1991 – **7.4 percent unemployment**

- **2001 - Saskatchewan**
  - Non-Immigrant Population – **6.4 percent unemployment**
  - Immigrants who entered country within 5 years prior to 2001 – **10.0 percent unemployment**
  - Immigrant who entered country within 6-10 years prior to 2001 – **5.5 percent unemployment**

2.4.6 Occupation Shortages

Human Resources and Skills Development Canada provides a quarterly report on the occupational shortages that occur for selected cities in Saskatchewan. Table 11 summarizes the occupations for where there are likely to be recruiting difficulties over the first half of 2005 due to a lack of available, qualified workers in the labour market. The table is organized by the four SIAST campus cities; other major southern Saskatchewan communities (Yorkton, Estevan, Swift Current and Weyburn); and other major central and northern Saskatchewan communities (Melfort, North Battleford, and LaRonge).

The health care field has the most predominant shortages overall. The provincial shortage of health care occupations that relate to technical training, include licensed practical nurses and registered/head nurses (provincial), paramedics and dental hygienists (central/northern), pharmacy technicians (Regina), and care aides (southern).

The trades have several shortage occupations as well. Truck drivers with Class 1A license, long haul experience or leased operators are in shortage across the province. Employers are turning to the province's immigrant nominee program to obtain qualified drivers. The program hopes to attract 240 long-haul truckers to the province

(Source: HRSDC Saskatoon Area Labour Market Bulletin, January and February 2005)

Other trades occupations that are required include machinists and machining/tooling inspectors, motor vehicle mechanics, technicians, and repairers (all in Saskatoon); construction millwrights and industrial mechanics with 3rd and 4th year journeyman status, steamers, pipefitters and sprinkler system installers with 3rd and 4th year; automotive service technicians, truck mechanics and mechanical repairers with journeyman (all in southern Saskatchewan); plumbers (in non-campus centres across province – with 3rd and 4th year journeyman required in southern centres); heavy-duty equipment mechanics (Saskatoon and northern Saskatchewan); and electricians (in northern Saskatchewan).

There are a few technology occupations currently experiencing shortages. Moose Jaw requires civil engineering technologists and technicians; while northern centres are in need of geological surveyors and instrumentation technicians.

HRSDC SASKATCHEWAN REGIONAL SERVICES, EMPLOYMENT PROSPECTS						
SHORTAGE OCCUPATIONS						
	SIAST CAMPUS CITIES - Jan-March, 2005				Jan-March, 2005	Jan-March, 2005
	Saskatoon	Regina	Prince Albert	Moose Jaw	Other Major Southern Centres	Other Major Central & Northern Centres
Nursing, Science and Health						
Ambulance Attendants and Other Paramedical Occupations (Paramedic)		✓				
Audiologists and Speech-Language Pathologists	✓	✓			✓	✓
Dental Hygienists and Dental Therapists						✓
General Practitioners and Family Physicians	✓	✓	✓	✓	✓ (long-term)	✓
Head Nurses and Supervisors	✓				✓	✓
Inspectors in Public Health, Environmental Health, OH & S	✓	✓				✓
Licensed Practical Nurses	✓	✓	✓		✓	✓
Managers in Health Care	✓					
Medical Laboratory Technologists and Pathologists' Assistants	✓					
Medical Radiation Technologists	✓					
Medical Sonographers (Ultrasound Technologists & Sonographers)	✓	✓				
Nurses Aides, Orderlies, and Patient Services Associates					✓	
Orthotists and Prosthetists	✓	✓				
Pharmacists	✓	✓	✓	✓	✓ (long-term)	✓
Pharmacy Technician		✓				
Physiotherapists (Physical Therapists)		✓				✓
Psychologists (Clinical)	✓	✓			✓	✓ (early childhood)
Registered Nurses (and Psychiatric Nurses in Prince Albert)	✓	✓	✓	✓	✓ (long-term)	✓
Respiratory Therapists	✓	✓				
Specialist Physicians (Psychiatrists, Specialized Surgeons, Pediatricians)	✓	✓	✓	✓	✓ (long-term)	✓
Business						
Business Services Managers (Other)				✓		
Financial Auditors and Accountants					✓	
Storekeepers and Parts Clerks						✓
Technical Sales Specialists - Wholesale Trade						✓
Community Services						
Cooks - Specialized Areas (Full-service only for southern SK)	✓	✓			✓	
Trades, Industrial Training, and General Labour						
Automotive Service Techns, Truck Mechanics and Mechanical Repairers					✓ (journeyperson)	
Construction Millwrights & Industrial Mechanics (3rd and 4th year)					✓	
Electricians						✓
Heavy-Duty Equipment Mechanics	✓					✓
Machinists & Machining and Tooling Inspectors	✓					
Motor Vehicle Mechanics, Technicians, and Repairers	✓					
Plumbers (3rd & 4th year journeyperson only for southern SK)					✓	✓
Steamfitters, Pipefitters, & Sprinkler System Installers (3rd and 4th year)					✓	
Truck Drivers (experienced, Class 1A license, long haul, & leased operators)	✓	✓	✓		✓	
Technology						
Civil Engineering Technologists and Technicians				✓		
Geological Surveyors						✓
Instrumentation Technician						✓

3.0 Summaries of Training Needs Assessment Industry Consultations

3.1 Introduction

Stakeholder consultations were held in March 2005 at three of the four provincial SIAST campuses - Kelsey (Saskatoon), Wascana (Regina) and Woodland (Prince Albert). Participants at the consultations included representatives from business, industry and professional associations. The purpose of the stakeholder consultations was to gather information on future training needs, employment trends, and emerging occupations and skill sets required for these. The information gleaned from the consultations focused on needs specific to each of the SIAST campus cities, as well as provincial training needs.

Along with the invitation to attend one of the stakeholder consultations, invited representatives were encouraged to complete a detailed questionnaire which requested information on issues such as anticipated growth or decline in the industry, future training needs, hiring difficulties due to shortages of trained workers, and training challenges or gaps. The 118 responses to the questionnaire were very enlightening.

Some of the invitees to the consultation sessions did not attend and therefore a number of industries may have lacked representation and input to the process, and the results of the consultations may not have comprehensively identified the needs of all industries in the province.

3.2 Summary of the Findings

The following chart is a summary of the discussions at the consultations with the industry and association representatives, and from the completed questionnaires. The findings are not necessarily presented in priority order.

Many skill gaps and skill shortages issues identified throughout the consultations and in the submitted questionnaires were not necessarily training needs but issues dealing with employment, such as demographics, difficulty in attracting qualified personnel, location, working conditions, and salary. These are employer and industry issues and SIAST, though empathetic, is not in a position to respond or change the situation.

Examples of these are:

- Workload and benefits
- Working conditions
- Retention of staff
- Out-migration
- Aging workforce
- Rural depopulation

Skill gaps imply a need for upskilling within the existing enterprises and workforce, while skill shortages occur when skilled job vacancies are hard to fill at reasonable wages and conditions. These definitions are taken from the Australian report "The Summary of the Rural Industry Working Group Report", of the Department of Education, Science and Training, Government of Australia.

The representatives at the consultations spoke very highly about SIAST, the programs, the relevancy of the curriculum to meet the skills required in industry, and the willingness to consult widely on all issues relating to the preparation of graduates for work.

The industry sectors represented on the chart can be located on the following pages:

- Advanced Technology, Electronics and Communication (page 21)
- Agriculture (page 22)
- Business and Professional Services (page 23)
- Construction and Related Trades (page 24)
- Educational Services (page 25)
- Film, Video, Multi-Media, Printing and Publishing (page 26)
- Health (page 27)
- Social Services (page 29)
- Hospitality and Tourism (page 30)
- Manufacturing (page 32)
- Natural Resourcesces and Environment (page 33)
- Retail and Wholesale (page 35)
- Transportation, Trucking, and Heavy Equipment (page 36)
- Issues Identified by Employers throughout the Province (page 38)

ADVANCED TECHNOLOGY, ELECTRONICS AND COMMUNICATION						
Provincial [1]	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
X	X		X	X	• SIAST's Geomatics Technology program should be aligned with other higher education programs, enabling students to receive credit toward a degree program (i.e., Geomatics Engineering degree equivalency from University of Calgary), which is required for those who want to obtain a land surveyor position. • Occupations relating to land surveying and geomatics are difficult to hire due to a shortage of trained workers. Occupations that require diploma training in geomatics technology include Geomatic Technician, CAD Technician, Chainman, Party Chief, Survey Assistant, and Survey Crew Chief positions.	
				X	• Geomatics Technology training provides excellent training for the land survey profession. However, there are very few trained technicians (Geomatics/ GIS) in the land survey industry in Saskatchewan. SIAST Moose Jaw campus is the only institution that has graduates which fit the requirements of the surveying profession. However, many graduates leave the province and land survey companies must recruit from outside-of-province.	The 2002 Graduate Employment Survey indicates 100% employment in Geomatics Technology diploma program, with 80% employed in Saskatchewan.
			X		• SIAST should work closely with the Saskatchewan Land Surveyors Association on a continuous basis to promote the Geomatics Technology program and ensure full program capacity. The SLSA has offered to work with SIAST previously. More students need to be enrolled in the program.	Discussions have taken place between SIAST and representatives of the SLSA to work on recruitment initiatives.
				X	• Incorporate more radio frequency training in Telecommunications/Radio System Technician curriculum – currently one term. Expense of equipment may be issue to SIAST as it can cost $30K for an analyzer. Include more troubleshooting and wireless technology training in curriculum.	

Hiring Difficulties Due to Shortages of Trained Workers						
Prov	M.J.	P.A.	R.	S.	Occupation	Training Requirements
					Geomatics Technicians, CAD Technician, Chainman, Party Chief, Survey Assistant , Survey Crew Chief.	Geomatics Technology diploma or Geographical Information Systems for Resource Management certificate program.
					Land Surveyors.	University degree & commission from Saskatchewan Land Surveyors Association (industry certification).

Hiring Difficulties Due to Other Reasons [2]						
					Occupation	Training Requirements
					None specified.	

[1] Provincial location indicates association respondents that represent employers throughout province.

[2] Other hiring difficulties include shortage of experienced workers; workers with high expectations of wages/benefits/or working conditions, or not willing to relocate; and employer not able to offer full-time/permanent employment.

AGRICULTURE						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
X					• With anticipated meat plants opening in the province, may need to provide meat processing training. Industry successful at bringing in immigrants to work in the agriculture sector – particularly to rural areas.	
X					• Meat processing now designated as a voluntary trade (not compulsory) with stand alone endorsement for slaughtering and processing. • Association currently working with Apprenticeship Trade Commission and SIAST to develop three year (1800 hour) program for meat cutting and processing to be offered within 2 years. Saskatchewan Agriculture and Food will be handling slaughtering.	SIAST in discussion with association and trade commission to offer apprentice training in meat cutting and processing.
X					• Increase number of retail meat cutting graduates to meet future hiring challenges with potential opening of new plants.	SIAST will monitor employment supply and demand for Retail Meat Cutting graduates.
				X	• An increased number of laboratory technicians may be required for animal testing to work in abattoirs and processing plants.	Work with Medical Laboratory program to investigate how this anticipated need can be met.
X					• Short courses required in computers.	SIAST offers numerous computer courses as extension activities.
Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	M.J.	P.A.	R.	S.	**Occupation**	**Training Requirements**
X					Meat cutters and processors, dairy herdspersons, pork technicians and machinery operators.	Apprenticeship or pre-employment training.
Hiring Difficulties Due to Other Reasons						
Prov.	M.J.	P.A.	R.	S.	**Occupation**	**Training Requirements**
					None specified.	

BUSINESS AND PROFESSIONAL SERVICES

Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
		X			• Deliver a financial services diploma at Woodland, as there are several opportunities in this field in Prince Albert.	
				X	• Offer a program related to financial sector, such as a business certificate that provides the basis for employees to specialize in targeted products.	Customized training, in consultation with employers to be pursued.
X					• Work with major bank to ensure adequate supply of educated aboriginal workers, with required competencies, are available for employment in branches throughout province (co-op education, contract, work experience, temporary work).	
			X		• Provide analytical thinking skills in accounting program.	
			X		• Conduct role playing situations into programs where students can learn the skills in how to deal with angry customers.	Contact Centre Professional applied certificate program uses role playing, and this could be expanded to other programs.
			X		• Deliver a telesales program that incorporates add-on sales training and Internet skills in a structured environment.	The program is being revised to incorporate these topics.
					• Increase capacity – need for more graduates increasing. Employers very satisfied with the program.	Program is also being offered through Quick Skills.
	X				• Provide entrepreneurship training for individuals interested in starting business in select fields.	SIAST offers an Entrepreneurship and Small Business certificate program. Also, courses from the program are available online.
				X	• Offer courses to improve basic job/workplace skills and computer/typing skills.	Courses offered through extension at all campuses.

Hiring Difficulties Due to Shortages of Trained Workers

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
			X		Audit Officers (10-20).	Grade 12 with minimum post-secondary introductory and intermediate accounting training.

Hiring Difficulties Due to Other Reasons

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
		X	X		Member/Customer Service/Account Representatives.	Grade 12; On the job; Computer skills.
			X	X	Senior Lending; Manager of Internal Audit; Mortgage Servicing.	Bachelor of Commerce.
			X		Manager, Corporate Financial Solutions; Senior Financial Analyst; Venture Capital Analyst.	Professional designations such as CA/CFA.

CONSTRUCTION and RELATED TRADES						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
X					• Increase capacity for related industrial training programs, membership has reported that there are long waiting lists in programs such as carpentry.	Construction training delivered through Quick Skills at all campuses and brokered to regional colleges. Also some work-based training is available.
			X		• Training required to upgrade the current workforce in response to changing technology – in all areas of the construction industry.	Encourage discussions between education extension consultants and employers to provide outcomes and skill set upgrading.
X					• Continued focus required to ensure solid training and education for grads of architectural technologies program. Co-op program is beneficial.	Education extension consultants to discuss specific outcomes with the program head.
			X		• Increase training for pre-employment and apprentices in the refrigeration trade, as it provides the best training for service technicians (HVAC).	
			X	X	• Update curriculum in Machine Shop program. Training on computer numerical control (CNC) would be beneficial.	CNC training is offered in CAD/CAM Engineering Technology diploma program. CNC training is also offered through extension.
		X			• Offer steam ticket, class 4 training (apprenticeship).	Training can also be delivered in any location in Saskatchewan.
X				X	• Increase apprenticeship training for welders, steel fitters, steel fabricators, pipe line welders – with economic boom mainly in Saskatoon - but also difficult getting apprentices to work in rural areas • Increase apprenticeship training in both residential and commercial construction – framers, interior and exterior carpenters.	75 new apprenticeship seats were announced in the recent provincial budget.
Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
X					Architect.	Bachelor or Masters, Architecture – there are no degree architecture programs in Saskatchewan. SIAST continually pursues discussions for credit transfer to degree programs out-of-province
X					Senior Architectural Technologist.	Diploma, Architectural Technology.
X					Scraper Operators.	No specific certificate/diploma specified. SIAST offers Heavy Equipment Operator certificate program. Delivered also through Quick Skills in partnership with Construction Careers.
X					Concrete Workers, Drywallers, Framers.	Responding with extension training
			X		HVAC Service Technician.	Refrigeration Mechanic is available
X					Concrete formers, roofers and framers.	Apprenticeship training is available
			X		88% of employers report shortage of staff in all areas of the construction industry.	
Hiring Difficulties Due to Other Reasons						
		X			Architectural Technologist.	Diploma.

EDUCATIONAL SERVICES						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
X	X				• Educational Assistant program should include additional training modules in the areas of student disabilities, accounting, and technology training.	Program undergoing review
			X		• Offer a Caretaker program.	Training available.
	X				• School bus drivers require a more rounded training that encompasses the challenges of transporting children (discipline, rules, etc.).	
X					• There is a shortage of library technicians with a diploma in Library and Information Technology.	
X					• The program should be updated to meet current requirements in areas such as Internet/election resources and management skills.	
X					• Additional resources (instructors and curriculum development staff) should be dedicated to diploma program, as students are being lost to competing institutions (SAIT and Red River College).	
X					• Increase distance learning opportunities for those who cannot attend on-campus (i.e., SCN, Internet).	
X					• Training required to update skills of librarians already employed – demand could be 10-20 annually.	

Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
X					Librarians/Library Technicians.	Masters of Library and Information Studies/Diploma, Library and Information Technology.

Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
					None specified.	

FILM, VIDEO, MULTI-MEDIA, PRINTING AND PUBLISHING

Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
		X			• Provide more detailed training in ad design and marketing courses.	
			X		• Provide practical hands-on experience for freelance film technicians.	
				X	• To meet the growth in digital photography, offer computer course for digital workflow, photoshop, etc.	
			X		• Some actively recruit graduates in visual arts training from Medicine Hat College and SAIT.	
			X		• Offer Media Arts Production program in Regina.	Program currently offered in Prince Albert – Woodland campus.
			X		• Provide training for production crews.	Training is offered through Job Start/Future Skills Work-Based training.
			X		• Business and entrepreneurship skills training needed for film industry.	Business and entrepreneurial centre is being established at Kelsey Campus

Hiring Difficulties Due to Shortages of Trained Workers

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
			X		Executive Assistant.	SIAST offers Business certificate/diploma programs.
			X		Television Producer.	Credential in broadcast technology.
			X		Producers, Production Managers, Production Technicians.	Task specific, business and administrative skills.

Hiring Difficulties Due to Other Reasons

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
				X	Photography Technician/Camera Operators.	SIAST offers an Applied Photography diploma program.
			X		Accounting Assistant.	SIAST offers Business: Accountancy diploma program at Palliser campus and Accounting certificate program through extension.
			X		Receptionist.	Office Education certificate program.
	X				Media Salesperson.	Field & Office training.

HEALTH						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
			X		• Offer a Physicians Assistant program to train individuals to work alongside physicians in emergencies.	Primary Care Nurse Practitioners work with physicians. The program offers training in emergency diagnostics and treatment.
		X	X		• Increase graduates of Advanced Care Paramedic and Primary Care Paramedic. Many of the graduates in the ACP programs are from outside Saskatchewan and do not have plans to remain in the province. In addition, many PCP graduates are only taking the training to support applications to the fire department and do not plan to remain in the occupation. • Re-instate the two-year experience requirement as a pre-requisite for the Advanced Care Paramedic program.	200+ enrolled students in the Primary Care Paramedic applied certificate and 16 in the Advanced Care Paramedic diploma programs offered at Kelsey and Wascana campuses. The 2002 GES report identifies that more than 80% of PCP and 75% of ACP graduates stayed in Saskatchewan.
		X			• Incorporate fire training in EMS programs. Company currently obtaining required training from Vermillion.	SIAST has pursued brokering fire protection training from Vermillion/Brandon.
			X		• Offer a more rigorous emergency medical dispatch program than what is currently being offered through the regional college, as the graduates do not meet the standards of employment.	The Emergency Services Communicator program recently deleted – low enrollment and low employment rate of graduates.
			X	X	• Future potential to increase number of laboratory technicians that could work with animal testing for abattoirs and processing plants. (New processing plants planned in province).	Training could be offered as advanced courses to graduates of the Medical Laboratory Technology diploma program.
				X	• Review and eliminate the First Qualified First Admitted entrance policy for medical diagnostic programs, as it is having a negative affect on the quality of employee candidates available for employment in health care clinic services and imaging research.	
				X	• Introduce pre-entrance interviews for medical laboratory/cytotechnology programs to determine if medical technology is the appropriate career for potential students (overview of occupational realities: a) shift and weekend work; b) contact with blood, sputum, body parts and fluids; c) smells, d) prolonged sitting, e) concentrated microscope time).	
				X	• Currently there is a shortage of trained cytotechnologists but intake in cytotechnology program may need to move to a bi-annual intake in future. Anticipated changes in cancer screening moving to a three-year testing cycle from a one-year, and also the introduction of liquid based technology will reduce need for cytotechnologists.	Additional funding through the Department of Health has been provided in order to continue with the development and implementation of the Cytotechnology diploma program. SIAST and program advisory committee will monitor employment situation.
				X	• Provide management training for healthcare professions to replace the managerial experience that will be lost as older workers retire. • *Project established in the health sector to deliver career pathing services and supports to improve the vertical and lateral transitions of all workers in the health sector, through effective career pathing models which will lead to a truly representative workforce and thus increase the meaningful involvement of Aboriginal peoples.*	Training could be customized for employers. Career pathing with Prior Learning Assessment and Recognition (PLAR) could help employees move into higher occupations. SIAST could play a role in providing PLAR, where appropriate and also potentially provide training for career pathing advisement.

HEALTH

Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
				X	• Develop cultural competency in students to improve working relationships, given increased cultural and socio-economic diversity in the workplace. In addition, prepare graduates to work in an interdisciplinary setting.	Cultural competency is offered as part of most SIAST programs.
X					• Nurses should receive training in IT communication to assist in implementing best practices and maximizing office effectiveness.	
X	X		X		• Increase training seats in the dental assistant program since many graduates use the Dental Assisting credential as a stepping stone for entry to the Dental Hygiene program and do not work as dental assistants. • Dental assistants require additional training in: - Clinical experience in chairside procedures; - Reception skills; and, - Other business training, such as dealing with dental insurance. • Computer program system in Dental Assisting program totally obsolete – system needs upgrading to be consistent with program used in industry.	Seat capacity in Dental Assisting certificate program was increased last year by 5 to an annual intake of 65 students.

Hiring Difficulties Due to Shortages of Trained Workers

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
	X		X		Dental Assistants/Receptionist; Dental Therapists; Hygienists.	1 or 2 years at SIAST.
X					Dental Assistant - Chair side.	SIAST.
X					Physical Therapist.	B Sc PT.
			X		Communications Officer.	
				X	Cytotechnology.	Cytotechnology diploma program.
				X	Medical Radiological/Medical Radiation Technician; Combined Laboratory-X-Ray Technician; Health Information Management.	SIAST diploma/certificate programs in Medical Laboratory, Medical Radiologic, Combined Laboratory and X-Ray Technician and Health Information Management.
				X	Nuclear Medicine Technician/Ultrasound Technician.	SAIT Nuclear Medicine; Medical Sonograph diploma.
				X	Registered Nurses.	Degree (NEPS) – SIAST offers years 1 and 2 of the 4-year degree program.

Hiring Difficulties Due to Other Reasons

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
X					Dental Assistant-Receptionist.	Certificate and diploma.
			X		Emergency Medical Dispatch.	Emergency Medical Dispatch training.
			X		Emergency Medical Technicians.	Primary Care Paramedic applied certificate.
				X	Home Care Aide, License Practical Nurses.	Home Care and Practical Nursing certificate programs.
				X	Paramedics.	Advance Care Paramedic diploma.
				X	Registered Nurses.	Bachelor of Science in Nursing/NEPS.

SOCIAL SERVICES						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
	X				• Increase graduates in Early Childhood Education, and provide improved support to those taking the training.	The Early Childhood Education certificate and diploma programs are delivered at three campuses as well as brokered by regional colleges.
				X	• Provide increased practical/hands-on training for home care program. Graduates must gain a better understanding of expectations in providing personal or all encompassing care, and maintaining a work schedule.	The Home Care certificate program currently includes two practicums totaling 45 hours.
		X			• Have difficulty recruiting staff to work in a corrections environment. Loss of corrections workers moving into to police department, as work environment is not attractive and thus a high turnover rate. Also difficulty recruiting plumbers and electricians.	100+ electricians graduate from pre-employment certificate program annually. The plumber program is an apprenticeship one and Apprenticeship Commission, in agreement with employers, identifies numbers to receive training at SIAST. SIAST also offers the Introduction to Plumbing and Pipefitting entry level applied certificate program.
			X	X	• Increase training seats in Youth Care Worker diploma program (one agency identified 50 new hires annually)– offer the program full time in Regina. • Applicants should be screened. • One agency indicated that diploma level is good for those wishing to go into management. • Youth Care Worker graduates hired with diploma receive same remuneration as those with certificate credential.	

Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
	X				Child Care Workers.	Early Childhood Education certificate and diploma programs.

Hiring Difficulties Due to Other Reasons						
Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
				X	Casual/relief Youth Care Worker.	SIAST or no training.
X					Early Childhood Educator (ECE).	ECE certificate/diploma.
				X	Full time overnight Youth Care Worker.	Youth Care Worker diploma or certificate.
				X	Group Homes Residential Counsellors.	Social Services, Rehabilitation, or Youth Care Worker certificates.
				X	Weekend/overnight Youth Care Worker.	Youth Care Worker certificate/diploma.

HOSPITALITY AND TOURISM						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Response by SIAST Programs
	X				• Provide customer service training.	Training can be offered through extension.
X					• Provide training related to community development for recreation workers, especially those that are working in small communities. Recreation workers are hired to work under the direction of a Board of Directors; however, directors do not always have a clear understanding of the Board's functions. Training should cover the functions of the Board and the relationship between the recreation worker, the whole Board, and the individual board members.	Recreation and Leisure Management and Tourism Management diploma programs amalgamated to one Recreation and Tourism Management diploma program. Curriculum includes the Community and Economic Development, Principles of Business Management and Leadership Skills.
X					• Provide administrative training for park managers (regional, urban and provincial parks) related to liability issues, budget development/control, grant and funding applications, and contract development.	
X					• Provide training on topics such as integrated pest management, pruning, and equipment orientation for park workers.	Pesticide Applicator, Pesticide Dispenser and Pesticide Applicator Renewal non-credit courses are offered through home-study delivery.
			X		• Wide range of training required for those in the recreation field – especially volunteers or part-time workers. Credit training not important. Required training includes accounting and other administrative skills, as well as training in customer service, strategic planning, proposal writing, construction, maintenance, mechanical, and playground safety.	Investigate extension delivery of short packaged courses to be offered in small towns throughout the province. Customer service training delivered through distance education.
X					• Eco-tourism program should be delivered at other locations in the province (outside of Woodland campus), and curriculum related to interpretation should be enhanced.	Ecotourism certificate program under review.
			X		• Offer tourism and hospitality programs in Regina, based on industry need (i.e., Food and Nutrition Service Management, Hotel and Restaurant Administration, Professional Cooking).	Hospitality study in Regina and Moose Jaw in 2002 identified the need for short courses offered through extension rather than full credentialed programs.
X					• Overall, hospitality industry has retention and recruitment issues in many occupations, due primarily to out-migration of workers who cannot find full-time/permanent work (generally 'frontline workers').	
X					• Provide more graduates from the Electronics Technician program to meet future staffing needs of new casinos in province. • Workplace essential employability skills are required for those working in the gaming industry.	Electronics Technician certificate program offered at four SIAST campuses. Investigate increasing short term training courses in essential skills.
Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	**M.J.**	**P.A.**	**R.**	**S.**	**Occupation**	**Training Requirements**
	X				Massage Therapists.	None specified (diploma requirement).
X					Park Workers.	Certification.
	X		X		Slot Technicians.	Electronics Technician certificate.

HOSPITALITY AND TOURISM						
Hiring Difficulties Due to Other Reasons						
Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
X	X				Bartenders/Line Cooks (Moose Jaw).	
X					Field Service Technician (gaming).	2 years Electronics or electronics technician.
X					Inventory Clerks (gaming).	Forklift; Materials Handling.
X					Recreation Directors.	Recreation and Tourism diploma or degree in Kinesiology, Physical Education, Physical Activity Studies or Recreation.
				X	Supervisory Technician (gaming).	2 years electronics and 2 years experience.

MANUFACTURING

Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Impact on SIAST Program Delivery
			X		• Provide more courses related to the steel industry (agriculture implement manufacturing).	
			X		• Provide continued assistance in recruiting students from Process Operator program (refinery).	
				X	• Participate in the increased promotion of trades as a career to students in high school.	Student Recruitment at SIAST participates in trade shows, career fairs, high school presentations and sp nd-a-day shows to promote all SIAST programs. Program areas are made aware of specific trade related shows for students and the public.
				X	• Offer a quality assurance training course related to non-destructive testing.	
X					• Offer more welding training.	Welding pre-employment training is offered at the four SIAST campuses. Welder apprenticeship training is also offered at three of the four SIAST campuses.

Hiring Difficulties Due to Shortages of Trained Workers

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
	X				Area Manager.	Industrial Engineering.
	X				Electrician, Engineer, Millwright (Meat Processor).	Journeyperson Tickets.
	X				Truck Driver.	1A driver's license.
				X	Machinist.	Pre-employment training or journeyperson certificate or equivalent.
				X	Quality Assurance Inspector.	Non-destructive testing training/experience.
				X	Welder.	Pre-employment training or journeyperson certificate or equivalent.
			X		Refrigeration Mechanics.	Apprenticeship or pre-employment refrigeration and air conditioning program.

Hiring Difficulties Due to Other Reasons

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
			X		Chief Steam Engineer.	Class 1 Ticket.
	X				Machinist.	Apprentice.
				X	Welder/Fitter.	Pre-employment.

NATURAL RESOURCES AND ENVIRONMENT						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Impact on SIAST Program Delivery
		X			• Increase number of apprenticeship offerings in PA to work in Pulp and Paper mill (electrician, welding, millwright, sheet metal, heavy duty mechanic).	600+ (4 levels) apprenticeship electricians are trained annually – these are already employed. 100+ electrician pre-employment graduates ready for employment.
		X			• Provide technical training in forestry. In the next 3 - 10 years, approximately 30% of staff in the forest service will be eligible to retire from the workplace.	SIAST consults with forestry industry to ensure forestry training needs are met and employment opportunities exist. The Forest Ecosystem diploma program is offered at Woodland campus in Prince Albert.
		X			• Provide an introductory course regarding certification in forestry to complement existing activities in government and private companies (ISO 14001 certified Environmental Management System).	SIAST offers a Forest Ecosystem diploma program and two forestry applied certificate programs – Vocational Forestry – Conventional Harvesting and Vocational Forestry – Mechanical Harvesting.
		X			• Pursue credit transfer training from the Forest Ecosystem, Integrated Resource Management, Resource and Environmental Law programs to degrees in other provinces. Workers with degree training will be required in the future to meet a large number of retirements in the forestry industry, in the areas of conversation and environmental enforcement (conservation officer/environmental officer).	Credit transfer discussions with University of Alberta, Lakehead University and University of British Columbia underway.
		X			• Offer sawfiler training in Saskatchewan. The majority of sawfilers must be recruited from Alberta and British Columbia (Apprenticeship Trade Commission), as Saskatchewan has virtually none in the province.	
		X			• Continue to provide graduates from the three Forestry related diplomas, to meet future requirements for management positions (in Silviculture). Due to seasonal employment, many graduates are leaving province to find full-time employment, so will not be available to fill future vacancies (seasonal and full-time management positions). Generally, industry prefers workers to have 8 years of seasonal experience before a full-time position is available. With the aging workforce it will only be a few more years before retirements in management occur.	SIAST will monitor supply and demand for graduates of the three programs. Employment rates currently high.
				X	• Require workers with GIS, aerial photography, remote sensing skills for forest maintenance and inventory.	Currently offers Geomatics Technology diploma and Geographic Information Science (GIS) for Resource Management certificate programs.
		X	X		• Increase training/certification in water and wastewater management and water collection/distribution to meet the shortfall anticipated in the next 3 to 5 years.	SIAST currently offers the Water and Wastewater Technician certificate program through home-study and online delivery. The program can be offered through extension anywhere in the province.
		X			• Provide online offerings for Water and Wastewater Technician program.	SIAST currently offers this program through home-study and online delivery.
				X	• Provide training focused on mining (open pit) and mill complex. • Offering power engineering program in the north.	Instrumentation program is offered in partnership with Northlands regional college in the north.

NATURAL RESOURCES AND ENVIRONMENT						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Impact on SIAST Program Delivery
			X		• Provide assistance to power engineering students preparing for 2nd class exams.	Power Engineering Technology diploma program provides training for 3rd and 2nd class exams. Direct instructor or tutorial services is available through extension for the 2nd and 3rd class examinations.

Hiring Difficulties Due to Shortages of Trained Workers

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
		X			Electrical.	None specified - assume Journeyperson.
		X			Sawfiler.	None specified.
		X			Water Collection & Water Distribution.	None specified.
		X			Water & Waste Water.	None specified (SIAST offers Water & Waste Water Technician certificate program).
			X		Applicator Foreman & Applicator Operator.	Industrial Applicator & Equipment Operator.
			X		Shift Engineer (2nd class).	Power Engineering (2nd class).
				X	Civil Engineer Technician.	Diploma.
				X	Mine Engineers, Internal Auditors, SOX Compliance Specialist.	Degrees.
				X	Pipefitter, 1st or 2nd Class Power Engineer, other trades.	Journeyperson ticket.

Hiring Difficulties Due to Other Reasons

Prov.	M.J.	P.A.	R.	S.	Occupation	Training Requirements
		X			Forest Management Audit Expert.	EMS Auditing Environmental Management Systems.
		X			Industrial Mechanic.	None specified - assume Journeyperson.
		X			Modeling Support Coordinator.	GIS Training.

RETAIL AND WHOLESALE						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Impact on SIAST Program Delivery
	X				• Provide a baker training program. There have been difficulties hiring bakers due to a lack of trained workers in the region.	
X					• Increase number of business administration graduates to fill vacant positions in grocery industry. Annually 200-250 vacant retail management positions in western provinces.	SIAST will monitor employment supply and demand for Business Administration diploma graduates. SIAST is looking at developing a grocery management program.
		X			• Offer business administration program in rural areas. There are problems attracting people to work in retail industry in the rural settings.	Year one of the diploma program is delivered at the regional colleges and by distance education.
X					• Need training in customer service and employability skills; i.e., punctuality, communication skills, resume writing.	Resume writing included in communications courses offered for many programs. SIAST will consult with retail company to discuss specific resume issues.
Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	**M.J.**	**P.A.**	**R.**	**S.**	**Occupation**	**Training Requirements**
	X				Baker.	Training in Baking.
Hiring Difficulties Due to Other Reasons						
Prov.	**M.J.**	**P.A.**	**R.**	**S.**	**Occupation**	**Training Requirements**
					None specified.	

TRANSPORTATION, TRUCKING AND HEAVY EQUIPMENT						
Provincial	Moose Jaw	Prince Albert	Regina	Saskatoon	Training Issues Identified By Employers	Impact on SIAST Program Delivery
X					• Work in cooperation with the Automotive Repairers Association, the Apprenticeship Trade Commission, and other government departments to implement a certified automotive repair trade in industry. Technicians are leaving the province to earn higher wages elsewhere, due to legislated regulations in other provinces. The quality of workmanship in the repair of vehicles must be regulated for the safety of consumers. • If automotive repair trade becomes compulsory, mandatory yearly inspections of vehicles could happen, and additional training may be required to cover this. • Upgrading training to address new technologies in the industry is required for current employees.	Additional skills may need to be added to auto body and automotive technician certificate programs.
X					• Double the capacity for pre-employment students in the Heavy Equipment Truck and Transport Technician and Agriculture Machinery Technician programs (current programs allow for approximately 65 pre-employment students in truck/heavy equipment program and about 24 in ag. machinery program). - It is estimated that after two years less than 60% remain in the trade. Many graduates return back to the rural areas to work on family farms. The secondary school system must be included in the promotion of trades as a career. High tool costs are also a barrier.	Seat capacity for Ag. Machinery Technician is 60 and 65 for Heavy Equipment Truck and Transport certificate programs. SIAST will monitor employment supply and demand for these programs.
X					• Offer motor coach operator training that is broad-based, including topics such as customer service, business literacy, WHMIS, dangerous goods transportation, and first aid.	
				X	• Offer program/certificate for truck drivers that provides training on topics such as customs, border crossing, paperwork, compliance/regulations, components of equipment, and realities of long haul transportation.	
X					• Increase graduates in the automotive trades to meet coming shortage in next few years. Due to high expectations in wages, many technicians leave dealerships to start own businesses.	
X				X	• Offer apprenticeship/journeyman training for the current pre-employment Outdoor Power Equipment Technician program. • Increase the number of graduates in the Outdoor Power Equipment specialty programs (marine, snowmobile, motorcycles). Too few trained workers remain in Saskatchewan.	Outdoor Power Equipment is not currently designated as an apprenticeship trade. In the past year SIAST trained 40+ graduates, many with multiple specialty skills. The program is offered at the Wascana and Woodland campuses. Past studies indicate the majority remain in the province.

TRANSPORTATION, TRUCKING AND HEAVY EQUIPMENT						
Hiring Difficulties Due to Shortages of Trained Workers						
Prov.	**M.J.**	**P.A.**	**R.**	**S.**	**Occupation**	**Training Requirements**
X					Motor Coach Operator.	License Training.
X					Parts Person/Technician.	Journeyperson
X					Service Technicians/Repair and Maintenance (Mechanics).	Journeyperson
X					Truck/Transport Mechanic/Technician.	Level IV or Journeyperson.
				X	Operators (truck drivers), Dispatcher, Management.	None specified.
			X		Heavy Equipment Truck and Transport Technicians – relying on immigrants to fill the labour force gap.	HETT certificate program.
			X		Automotive industry anticipates significant shortage of technicians in 5-10 years with aging workforce. Retention is also a concern.	
		X			2-cycle & 4-cycle Mechanics.	None specified (SIAST offers Outdoor Power Equipment specialties).
				X	Mechanic & Service Writer (Recreational Motor Vehicles).	1-2 years training for Mechanic (SIAST offers Outdoor Power Equipment specialties).
Hiring Difficulties Due to Other Reasons						
Prov.	**M.J.**	**P.A.**	**R.**	**S.**	**Occupation**	**Training Requirements**
X					Service Managers.	
		X		X	Partsperson.	SIAST attempted to deliver Level 1 training this past year through Quick Skills, with a low response.

Issues Identified By Employers throughout the Province	Impact on SIAST Program Delivery
• Employability skills/essential life skills included in curriculum of all programs.	
• Writing, oral, communication skills lacking – communication skills not only resume writing.	
• Expectations of behavior in a professional workplace, including dress codes and standards of conduct.	A "technical seminars" course that will specifically address professionalism is being introduced in all engineering technology programs.
• Improve resume writing and interviewing skills. Graduates may have the skills required for the occupation, but they do not know how to market these skills to the employer. Graduates also need to learn how to tailor resumes to the specific occupation of interest.	
• Career planning and realistic goal setting required. • Job shadowing to help students make better career choices.	
• Offer more basic education training in smaller communities. Math and science offerings are required in Northern communities.	SIAST delivers online courses. Other delivery responsibility of regional college. Saskatchewan Learning has indicated there will be 1,000 new training opportunities in the Job Start/Future Skills Workbased Training program, adult basic education and apprenticeship programs.
• Immigrants require additional language training including medical terminology for specialty occupations (Home Care/Special Care Aide program).	Medical terminology training course is offered through distance education.
• Apprenticeship training should be more flexible - consider 2 day Friday/Saturday offering where employer and employee each give up one day.	
• Chambers of Commerce and CanSask offices consider working together to deliver career information sessions.	
• Increase number of students with disabilities completing credentialed training (i.e.; researcher in health services for the disabled; administrative assistant). In addition, incorporate updated knowledge of disability issues and programs in existing SIAST programs/services.	SIAST targets disabled percentage of enrolled students for programs. Applications do not meet target percentages.
• Increase number of graduates of aboriginal ancestry working in all occupational areas.	SIAST Aboriginal participation in certificate and diploma programs is above 16%.
• Dissatisfaction expressed from many sources with the First Qualified/First Admitted admission process. Also, employers believe applicants are not properly screened for program and end up in a career that is unsuited for them. (Examples: Accounting/Accountancy, Youth Care Worker, Medical Diagnostics, Dental Assistant/Hygiene, Film and Video Production, Industrial, and Power Engineering programs).	
• Wait list issues for many programs are problematic.	
• High school students should be encouraged to do more career research – what is expected to be successful in a career – and for instance, does it involve shift work.	

4.0 Summaries of relevant studies and reports

4.1 Overview of sector partnership reports

The sector partnership program, an initiative of the Department of Saskatchewan Learning, supports industry sectors in the province to implement partnerships with community stakeholders and training providers. The purpose of the sector partnership program is two-fold: a) plan and develop human resource strategies to address industry skill shortages in the province, and b) improve the province's ability to compete in external markets. Financial assistance is provided by the Department of Saskatchewan Learning to implement the partnerships; identify and address industry-skilled employment needs; and develop a human resource plan and development training approach.

In the 2004-05 year, there are 32 industry sectors (listed below) in the province with a total of 57 completed reports. Many of the 32 sectors have completed research reports in the past few years which have been summarized in previous SUTNA reports. Similarly, some of the sectors are now into phases 2 or 3, and completed reports of the relevant industry have also been reported in SUTNA reports. Four reports, highlighted below, have been completed within the past year and are summarized in section 4.0.

1) Apparel and Textile Sector *(Apparel and Textile Association – ATAS)*
2) Arts and Culture Sector *(SaskCulture Inc.)*
3) Aviation Sector *(Saskatchewan Aviation Council – SAC)*
4) Beef/Cattle Feedlot Sector *(Saskatchewan Cattle Feeders Association)*
5) Commercial Fishing Sector
6) Cosmetology/ Beauty Sector
7) Early Childhood Care and Education Sector
8) Environmental Sector *(AMEC Earth and Environmental Ltd.)*
9) Export Manufacturing Sector
10) Film and Video Sector *(Saskatchewan Motion Picture Association – SMPIA)*
11) Fire/Rescue Service Sector
12) **Food Processing Sector** (4.1.4)
13) Forestry Sector
14) Floriculture Sector
15) Health Sector including:
    a. Home Care/Special Care Aide Workforce Sector
    b. Mental Health Workforce Sector
    c. Saskatchewan Association of Health Organizations - SAHO
    d. **Saskatchewan Paramedic Association** (4.1.2)
16) Hunting, Fishing and Tour Guide (Outfitters) Sector *(Saskatchewan Outfitters Association Inc.)*
17) Immigrant/Refugee Sector *(Regina Open Door Society)*
18) Implement Manufacturing Sector *(Prairie Implement Manufacturing Association (PIMA)*
19) Information Technology Sector
20) Low-Rise Residential Construction Sector *(Saskatchewan Home Builders Association)*
21) Masonry sector *(Saskatchewan Masonry Institute)*
22) Music and Sound Recording Sector *(Music and Sound Recording Industry Association - SRIA)*
23) **Occupational Health and Safety Sector** (4.1.3)
24) Plastics Industry Sector *(Canadian Plastics Industry Association – West Region)*
25) Plumbing and Pipefitting Trades Sector *(Mechanical Contractors Association of Saskatchewan/United Association of Journeymen and Apprentices of Plumbing and Pipefitting])*
26) Primary Agriculture Production Sector *(Saskatchewan Council for Community Development)*
27) Road Building and Heavy Construction Sector *(Saskatchewan Construction Association)*
28) Saskatchewan Process Industry Training Network

29) Tourism Sector *(Saskatchewan Tourism Education Council – STEC)*
30) Trucking Sector
31) Water/Wastewater Systems Operators Sector *(CUPE)* (4.1.1)
32) Woodlot/Agroforestry Sector

4.1.1 The Water and Wastewater Workers Essential Skills Project

The Saskatchewan Government mandated that by July 2005, all system operators of water and wastewater treatment plants must be certified to work in that occupation. The Water and Wastewater Essential Skills Project was developed to assist the majority of the 1300+ operators who have been working in about 600 Saskatchewan communities with water and wastewater works 'licensed' by Saskatchewan Environment, as well as the 219 facilities that have operators certified at some level of water treatment, water distribution, wastewater treatment and wastewater collection. These operators have been working for many years in the public utility field and some may need refresher training and upgrading assistance in essential skills in order for them to be successful in the certification training and examinations in preparation for July 2005.

A customized TOWES (Test of Workplace Essential Skills) profile was developed which outlined the skills required for the job. System operators with no certification and those with certification levels one and two, from urban and rural communities in the province and from sites north of Prince Albert, were surveyed using the developed profile – overall a sample of 44 workers. TOWES measures three workplace skills – reading text, document use (document literacy) and numeracy.

The results of the project indicated that there is significant evidence of a low level of essential skills at this stage of the existing system operator workforce. As well, the geographic and cultural issues, as they pertain to the essential skills training needs particularly of northern and Aboriginal workers, indicates a need for the development of a best practices approach.

Recommendations

Following the essential skills survey, a detailed set of recommendations was developed which included:

- Essential Skills Upgrading
- Exam Preparation
- Learning Strategy
- Access to Education and Training
- Occupational Knowledge, Literacy Levels and Alternative Examination Methods
- Recognition of Workers' Effort and Commitment
- Compensation for Study Time

The report and details of the recommendations can be viewed by accessing the Sector Partnerships Program section of the Saskatchewan Learning website,
http://www.sasklearning.gov.sk.ca/branches/programs/jsfs_spp_pub.shtml

4.1.2 The Saskatchewan Paramedic Association

National changes to the health care delivery services in the past few years prompted The Saskatchewan Paramedic Association to conduct a labour market analysis of the emergency medical services providers in the Saskatchewan. The final report was released April 2005.
Part of the labour market analysis included a literature review, surveys to employers and employees in the industry, focus group sessions, and a gap analysis which typically would identify fundamental gaps that exist between what is currently in place and what the emergency medical service industry requires.

Fifty employers and 351 employees of both public and private companies were surveyed. Five focus group sessions were held to validate and explore in greater depth the findings or issues identified in the responses to the survey. The gap analysis identified as a major issue that there are numerous job titles and descriptions for EMS personnel in the province which causes confusion for employers and employees as well as relevant health sectors in the province.

Recommendations

The Saskatchewan Paramedic Association, currently a voluntary organization, would like to see a self regulating body to speak for all emergency medical services personnel in the province. The following recommendations were submitted:

- Develop and implement a continuing education model to coordinate and promote continuing education needs and opportunities in the sector
- Develop a comprehensive communications strategy to support The Saskatchewan Paramedic Association
- Develop a strategy for recognition of prior learning to provide industry with an awareness and understanding of how to support training, career laddering, career pathing in the sector
- Develop and enhance partnership with Aboriginal organizations to promote training and career opportunities in order to work towards a representative workforce within the sector
- Develop and implement strategies to enhance communication and information sharing between agencies and Saskatchewan Health pertaining to statistical data information, educational opportunities and funding/bursary opportunities. Explore the development of a database to house a health resource guide to educational and employment opportunities
- Develop a process to begin reviewing scope-of-practice within the different occupations in the sector and ensuring that training programs continue to meet support individuals in working within their full scope-of-practice. This could also include exploring blended positions as they exist currently and if and how they could be enhanced to meet future human resource needs of the industry
- Review current occupational levels within the sector and explore options to consider streamlining the current levels working within the objectives of the National Occupational Competency Profiles for Paramedic Practitioners and the Agreement on InterProvincial Trade.

An action plan was developed which identified five steps for the Steering Committee that headed the labour market analysis.

The final report and details of the recommendations can be viewed by accessing the Sector Partnerships Program section of the Saskatchewan Learning website, http://www.sasklearning.gov.sk.ca/branches/programs/jsfs_spp_pub.shtml

4.1.3 Occupational Health and Safety

A recommendation from an Occupational Health and Safety study completed in March 2001, indicated that "Saskatchewan would benefit from the implementation of a systemic, made in Saskatchewan, OHS education and training model." Following the report, consultations were held and stakeholders recommended that a provincial advisory group be established and a needs assessment be undertaken to identify specific education and training gaps, as well as explore other options in developing the emerging OHS sector. The findings and recommendations of this additional project were completed and the report finalized in March 2005.

The successful completion of the objectives of the Occupational Health and Safety project were:

- Needs analysis/assessment
- Recommendations and strategies for future direction
- Development of post-secondary credit program, with recognition of practitioners' prior learning
- Development of a long-term strategic plan

The second phase would review the following additional initiatives:

- Articulate further with other academic institutions and industry regarding the OHS Practitioner's credential
- Expand SIAST Prior Learning Assessment and Recognition to meet the needs of those challenging for credit
- Examine opportunities for OHS education and training for the students in the K-12 education system and those entering the workforce for the first time
- Expand delivery of the OHS program beyond Regina and Saskatoon
- Develop delivery opportunities for Aboriginal youth and Aboriginal employers
- Consider development of registry of practitioners in the province

The final report and details of the recommendations can be viewed by accessing the Sector Partnerships Program section of the Saskatchewan Learning website, http://www.sasklearning.gov.sk.ca/branches/programs/jsfs_spp_pub.shtml

4.1.4 Saskatchewan Food Processing - Phase II

The objective of phase II of the Saskatchewan Food Processing industry was to determine the best practices for development and delivery of training for Saskatchewan food manufacturers, including the evaluation and cost analysis of a distance education component. Part of the study included:

- A profile of the sector in Saskatchewan
- A SWOT analysis of different types of distance education media
- Focus group consultation which identified ten training courses that would be beneficial both to management and production workers in the industry

The findings of the study and final report were completed in March 2005. The sector will continue to investigate a number of new initiatives, including targeting training programs for the sustainability and growth of the Saskatchewan food manufacturing industry.

The final report and details of the recommendations can be viewed by accessing the Sector Partnerships Program section of the Saskatchewan Learning website, http://www.sasklearning.gov.sk.ca/branches/programs/jsfs_spp_pub.shtml

The following sector partnership reports are pending and will soon be available on the Sector Partnerships Program section of the Saskatchewan Learning website, http://www.sasklearning.gov.sk.ca/branches/programs/jsfs_spp_pub.shtml :

- Home Care/Special Care Aide (Phase 2)
- Masonry
- SAHO Career Pathing (Phase 2)
- Primary Agriculture Production (Database/Website dev)
- Low Rise Residential Construction Sector (Phase 4)
- Immigrant (Phase 2)
- Plumbing and Pipefitting (Phase 3)

4.2 Summary of SIAST needs assessment studies

The institutional research and analysis unit of the SIAST program, planning and development department conducted the following industry profiles or needs assessment studies to research the potential demand for new programs, expansion of programs, or major revisions to existing programs.

4.2.1 Funeral Homes – Industry Profile/Needs Assessment

The Funeral and Cremation Service Council (FCSC) Education Review Committee indicated a desire to establish a funeral services credentialed program in the province. A profile was conducted of the funeral services industry to determine the existing personnel in the province and ascertain the qualifications that they currently have - funeral directors, assistant funeral directors, embalmers and apprentice embalmers, and related occupations - bereavement counselors and funeral attendants.

Implementation of a cost recovery Funeral Services certificate program with both Embalmer and Funeral Director certificate specialties is underway. The program will be offered primarily through a combination of distance study and work-based training.

4.2.2 Grocery Manager – Industry Profile

A profile was conducted of the grocery industry to determine what type of grocery stores exist in the province. There are four levels – chain stores, co-operatives, wholesalers and independent stores. The larger stores often have on-site management training available and therefore the review looked at the independent stores that probably would not have management training provided for staff. It was determined that there are over 100 independent grocery managers in the province that could potentially be interested in a grocery manager credentialed program. Discussions on proposed learning outcomes in the potential program have begun with industry representatives.

4.2.3 Perioperative Nursing /Registered Nurse and Perioperative Nursing/Licensed Practical Nurse – Labour Market Needs Assessment

A labour market needs assessment was conducted for both programs to determine if there was a shortage in the province of perioperative nurses and if an increase in seat capacity at SIAST was warranted. Responses to the surveys that had been sent out to thirteen operating room managers of hospitals in Saskatchewan indicated that there was a need to have more perioperative nursing graduates to fill existing and potential vacancies. The total seat capacity for perioperative nurses was increased by six seats.

4.2.4 Ecotourism Certificate Program – Labour Market Needs Assessment

To assist SIAST in a program review process for the existing Ecotourism certificate program, a survey was sent to 200+ tourism operators in the province in order to determine human resource requirements and future training needs of owner/operators, managers, and staff in the industry. As well, consultations with stakeholders took place. Based on the responses to the survey, which are currently being analyzed, and the consultations, the decision on how to proceed will be made.

4.3 Other Reports

Touchwood First Nations Integrated Academic-Skills Training Program Needs Assessment Study
The purpose of the study was to conduct an assessment of training and academic needs of the residents of the Touchwood First Nations in order to develop and deliver a Touchwood First Nations Academic Skills Training Program, as well as determine job prospects in the areas of the training. Surveyed to participate were the 15 to 35 year olds living on the Day Star, Gordon, Kawacatoose, Muskowekwan and Fishing Lakes First Nations locations. The largest group of the 233 usable returned surveys, 31.3%, were those in the 19-24 age group that indicated a need for skills training and wanted to enroll in an academic-skills training program..

The survey determined that a high percentage of respondents, 72%, had partially or not completed their high school education. As well, a high percentage of the respondents were unemployed. Of the many trades and occupations identified on the survey list, 60% of respondents indicated the following as their first or second choice for a trade or occupation - carpentry(44%), professional cooking (29%), auto body (27%), office education (26%), and business occupation (20%). Though they do not have the education levels required to train in a chosen trade or occupation, 65% of respondents in the 15-24 age group indicated that they would like to take access the academic skills and knowledge required for the trade/occupation while they take trade/occupation training.

Recommendations
As a result of the responses to the survey, the following ten recommendations were proposed:

- Develop and implement an academic-skills training program
- Program implementation and maintenance lies with the Touchwood Director of Education, with input from the Touchwood Agency Tribal Council and the Touchwood Human Resources Development Committee (HRDC)
- The Touchwood Director of Education and the Touchwood HRDC to work together and pool resources in order to create a unified, effective training strategy
- Training to commence January 2005
- Training programs be linked to the priorities outlined in the Academic-Skills Training Needs Assessment report
- Partnerships for training in selected trades be developed with local businesses
- Create and develop a training centre
- Focus local HRDC funding to support training
- Consider developing an education system similar to the German model, where apprenticeship training is integrated in the secondary school system
- Hire a vocational counselor for Touchwood youth 15-24 years of age

For details of full report, contact author James Cunningham, Putting Research Into Action Consulting, 81 Westfield Drive, Regina S4S 2S5.

References

Canadian Education Statistics Council. Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program 2003. November 2003. http://www.cesc.ca/pceipE.html - adapted

Canadian Labour and Business Centre, March 2005, Saskatoon

Canadian Labour and Business Centre, March 2005, Saskatoon – adapted

CIBC World Markets. Provincial Forecast. March 10, 2005. www.cibcwm.com/research

Government of Saskatchewan, Bureau of Statistics, Monthly Statistical Review, April 2005

HRSDC Saskatoon Area Labour Market Bulletin, January and February 2005

Human Resource and Skills Development Corporation (HRSDC. Labour Market Bulletins. www.hrsdc.gc.ca

Labour Market Trends, Sask Trends Monitor. November 2004. http://www.sasktrends.ca – adapted

Presentation made March 18, 2005, by the Canadian Labour and Business Centre using Citizenship and Immigration Canada data and Statistics Canada data

Saskatchewan Learning. Enrollment Projections for Kindergarten to Grade 12, 2004-05 to 2013-14, February 2004 Update, Adapted – 1998-99 and 2003-04 years are actual enrolments

Saskatchewan Learning. Sector Partnerships Unit. http://www.sasklearning.gov.sk.ca/branches/programs/jsfs_spp_pub.shtml

SIAST Education Equity Statistics, Institutional Research and Analysis Unit, 2005

SIAST Institutional Research and Analysis Unit, 2005

Statistics Canada. 2001 Census data, Aboriginal peoples of Canada: A demographic profile. Adapted Catalogue no.96F0030XIE2001007

Statistics Canada. 2001 Census data, prepared by the Saskatchewan Bureau of Statistics

Statistics Canada. A Profile of Disability in Canada, 2001 – Tables. 2001 Participation and Activity Limitation Survey. December 2002. Catalogue no. 89-579-XIE – adapted

Statistics Canada. Employment by Major Industry Groups and Province, Seasonally Adjusted, Saskatchewan. CANSIM, Table 282-0088. April 2005

Statistics Canada. Labour Force Survey, CANSIM, modified April 2005

Statistics Canada. The Daily, April 8, 2005. Labour Force Survey

Statistics Canada. The Daily, April 14, 2005. Study: Canada's Economic Growth in Review

TD Economics. Regional Economic Outlook. March 21, 2005. www.td.com/economics